

DAIRY FACTS

DEVELOPMENT OF THE UDDER

Great Deal Can Be Done to Correct Faulty Udder by Method of Milking—Some Good Ideas.

When it comes to the show ring a great deal depends upon the symmetry of the udder and its general development. For simple dairying also a cow with a well-balanced udder is better liked than one with an udder large behind and small in front. With a fault like this a great deal can often be done by the method of milking.

The quickest and best way to develop the fore part of the udder seems to be by keeping on milking the two front teats longer than the hind teats when the cow is being dried. The development of a quarter largely depends upon the amount it is used, and when the hind teats are not used, the rear part of the udder naturally shrinks in size, while the front quarters, being used, retain their size and a better balance is made between front and rear. This is done very naturally at the end of the lactation period and by milking two weeks longer in front than behind quite a change can be made in the shape of the udder when the cow freshens again.

In ordinary times the fore part of the udder can be developed somewhat by milking the front teats out about half, then milking out the hind teats entirely and returning to the front teats again to finish milking, but the most effective method for developing the front of the udder to give it a better balance with the hind part is to keep milking the front teats about ten days or two weeks after stopping milking the rear teats.

KEEPING UP THE MILK YIELD

Almost Impossible to Bring Cow Back to Her Normal Flow After It Has Once Declined.

Butterfat is scarce. The price is high, and is going higher. It will pay to produce more butterfat, but it cannot be done by feeding the cows full grass, cornstalks and timothy hay, writes P. M. Brandt in an exchange. It is important that the milk yield never be allowed to decline. It is almost impossible to bring a cow back to her normal flow after it has been permitted to decline.

It is important that fall feeding be commenced now before the milk flow is cut down by short grass and scant feed. Those who are fortunate enough to own a silo should give each cow about twenty-five pounds of silage a day. Every cow should have all the clover, alfalfa or cowpea hay she will clean up. This amount will be about ten pounds a day if the silage is fed. If silage is not fed, more hay should be given. It is well to re-



Good Milkers.

member that cowpea hay is one of the cheapest of dairy feeds.

Cows giving over a gallon of milk a day should be fed grain. A good grain mixture is corn chop mixed with bran or cottonseed meal. Corn and cob meal may be substituted for the chop. A pound of this mixture should be given each day for every three pounds of milk produced.

The best of cows will not produce milk unless fed liberally on the right kind of food.

FEED NECESSARY FOR COWS

Lack of Sufficient Nutritious Food Often the Cause of Shrinkage in the Cow's Milk Flow.

(By T. L. HAECKER, Minnesota Experiment Station.)

It sometimes happens that farmers are in possession of extra good cows, but not realizing the amount of feed required by cows giving a large yield, they are soon allowed to shrink in milk because the feed given does not provide sufficient nutriment. While cows in good condition can, for a time, give more milk than the feed provides, by drawing upon the fat stored in the body, yet if the cows lose in body weight, there will soon follow an abnormal shrinkage in milk flow, and also a decrease in the quality of milk yielded.

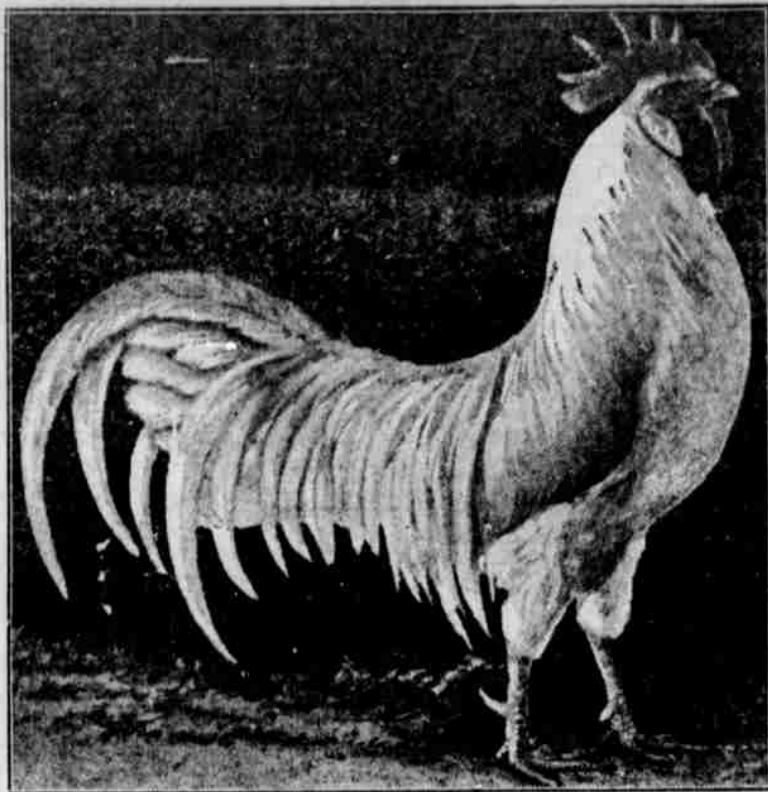
Keep Cream Cool.

Keep the cream cool. It should be as near 50 degrees F. as possible, if it is desirable to keep it sweet and check bacteria action.

Keeping the Cow Busy.

Don't expect a cow to put in all her time feeding. Give her credit for working when she is chewing her cud.

IMPROVING LAYING QUALITIES OF FLOCK



Single Comb White Plymouth Rock Cock.

(By MRS. C. G. LANE.)

If you wish to improve your flock carefully, so you will know the hens that are the best layers, put these hens into a house by themselves, with a rooster for each 12 hens. Feed them a good variety of food, make them exercise, and use the eggs from this house for setting.

If this plan is followed from year to year, a great improvement will be made in the laying qualities of the flock.

If you are more especially raising poultry for market, then select your breeding hens for those qualities, and the improvement will be as great along those lines.

A great deal is heard these days about pure-bred poultry being so much better than scrubs, and they certainly are a great deal more profitable than the usual mixed flock.

It costs no more to keep a flock of pure breeds than one of mongrels, and a flock of beautiful, high-bred fowls look much better than one of all sizes, colors and conditions.

This is an advantage, for the pleasure of their beauty helps us to take more interest in caring for them.

As regards their being more profitable, the pure breeds bred for certain qualities are sure to have those qualities in greater degree than fowls raised without any regard to these points.

Thus fowls bred for generations from the best layers will lay more eggs than others where this care has not been taken and the same is true regarding the size, flesh and general table qualities. In the poultry business every extra egg and pound of flesh counts, so this alone makes a sufficient reason for good breeding.

There will also be in the pure-bred flock a uniformity of size, which makes a better looking crate of fowls to send to market and the eggs will be of the same size and coloring, which adds greatly to their appearance.

BREEDING SEASON AT HAND

Eggs Must Be Known to Be Fertile—See That Hen Is Properly Fed—Exercise Is Essential.

Setting time is far on the way. A few items may help the small poultryer to make a success of his period of incubation. First comes the study of the egg. It must be fertile and should be known to be this or much good time will be lost. Fertility comes from the male bird, the condition of the egg when it is put under the hen, and the condition of the hen herself largely determines the hatch. Back of the egg is the hen. She must be well fed, or, rather, properly fed, or she cannot produce an egg capable of carrying the germ to a successful hatch. Hens that are kept in too close quarters or in unhealthy quarters are not apt to lay eggs that will bring forth strong and healthy chicks. Hens that are troubled with lice are in no condition to produce good eggs. In a word, hens for producing eggs that are quite sure to hatch must have fresh air, cleanliness, exercise and an assorted and balanced ration. Any exclusive feed, constantly given, will pall upon the hen and influence the egg for evil. Meats, clovers, green food of any wholesome kind are good with grain and soft foods. Fowls with free outdoor exercise are more apt to lay fertile eggs than hens that are kept confined.

Have Extra Coop.

It is well to have a single coop hanging in the breeding pen into which you can put the male for extra good feeding, as many males will not get enough to eat unless fed separately. It is also a good plan to have such a coop when you are making close matings—one male to two or three females. In such cases keep the male shut up each day except for a little while.

Keep Chickens Busy.

A head of cabbage or piece of meat hung on a string just above the chickens' heads will keep them busy for a long time.

The farmer, in making a start in pure-bred fowls, if he buys from large poultry farms, should get what is called utility stock, instead of the fancy birds which are raised for show purposes.

The utility stock is just as well bred, and perhaps is better for practical purposes, but there is some little fault possibly in the color of a feather which disqualifies them for show purposes.

It need not be expensive to make the change from a flock of mongrels to pure-bred stock. By looking for the chance, one may often get a few old hens from a neighbor who has the desired breed. If this happens to be a neighborly neighbor he will not charge you much, if anything, in advance over the market price, when he disposes of his old hens to make room for his pullets.

While perhaps these old hens are not so profitable for him to keep as the younger ones, still, you can afford to keep them through the hatching season, for the sake of getting a start.

Then buy somewhere a good rooster of the same breed to keep with them, and you have a good beginning.

Another way to get a start with pure-bred stock is to get a setting of eggs and raise the little chicks for the foundation of your flock.

If each year you keep all the pure-bred fowls by themselves during the breeding season and set all their eggs, selling off the mongrels as you raise the others to take their place, it will not be long before the entire flock will be changed, and the mongrels will have disappeared from your farm.

Don't neglect to introduce new blood into the flock by a change of cocks. Careless inbreeding will ruin the best flock that ever cackled.

Line breeding, if understood, can be practiced to advantage, but it is more trouble than the average farmer cares to take with poultry, and necessitates several different breeding pens and confining the fowls in them.

VENTILATE THE HENHOUSE

Cloth-Covered Window Will Permit Air to Pass Slowly Back and Forth Without Creating Draft.

A tree is the natural home of the hen. She was not intended to live in a house.

In housing a hen so that she will produce eggs during the winter, we have confined her in a home as tight and stuffy as our own. But unlike most humans, the hen wants fresh air more than she wants warmth.

In providing a home for the hen we should protect her against storms and cold winds but we should take care that we do not exclude fresh air and light.

One of the best systems of ventilation, according to J. G. Halpin, College of Agriculture of the University of Wisconsin, is a cloth-covered window which will allow air to pass slowly back and forth without a draft. The cloth should be stretched on a hinged frame so that the entire window may easily be opened. The window should be placed when possible on the south side of the poultry house. It will need to be open a large part of the time, being closed only during storms and on the coldest nights.

Keep Dogs and Cats Away.

Dogs, cats or other animals should never be allowed to visit the yard where the hens are kept. These animals will frighten the fowls and cause them to become wild and skittish. To get the best results from your hens you must keep them gentle and contented.

Avoid Overcrowding.

Do not crowd the growing stock. It is the surest way to develop roup. The chicks get overheated during the night and catch cold. Better let them roost out in the open than to keep them in too close quarters.

Prevent Drafts.

Cover the holes made in the poultry house for ventilating with coarse burlap. This will prevent drafts.

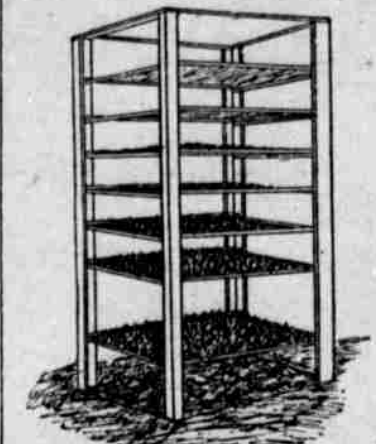
POULTRY

ESSENTIALS IN HEN HOUSES

Comfortable Fowl Will Prove Far More Profitable Than One That Is Not So—Best Location.

(By A. R. LEE.)

The prime essentials in poultry houses are fresh air, dryness, sunlight and space enough to keep the birds comfortable. No particular style of house is particularly adapted to any section of this country. A house which gives satisfaction in Maine will also give good results in Texas or California, but it is preferable to build more open and consequently less expensive houses in the South than in the North. The best site for the poultry house depends principally on the



An Oat Sprouter.

local conditions. The location should have good drainage, so that the floor and yards will be dry, while the house should not occupy a low pocket or hollow in which cold air settles, and it should be situated for convenience in management and adapted to the available land. Wherever possible a southern or southeastern exposure should be selected although this is not essential if there is any good reason for facing the house in a different direction.

To prevent waste of feed in poultry houses and reduce the handling of the dry foods and grits, it is necessary to use hoppers. Green food is essential as a part of the winter ration for the fowls. When cabbage and beets are not available, sprouted oats can be easily fed. Soak the oats in a bucket for at least 24 hours and then place



A Grit Box Saves Waste.

in a pile on a shelf of a sprouter. On the third day spread them out on the different shelves and let them grow to a height of not over two inches, then feed them. Keep the oats in a room of moderate temperature and dampen every day.

FURNISH SOME GREEN FOOD

Either Lettuce Grown in Hotbeds or Sprouted Oats Are Excellent for the Little Chicks.

Be prepared with some sort of green stuff for the little ones. Either lettuce grown in hotbeds or sprouted oats, handled in boxes. Whatever it may be, it should not be omitted, as it is just as essential as fruit and vegetables are to the average person. Have convenient and sanitary water vessels so made that chicks can drink without being able to get into the water with their dirty feet. These should be well scalded out at least once a week where used for the right little ones. Soft feed, if used, should be fed either upon fresh papers each time or in small troughs, and not thrown on the ground, which may contain all kinds of filth and contamination. Striving to avoid all the points of common carelessness and dirty conditions is the road leading to success with chicks.

Comfortable Chicken House.

If your chicken house is not real warm and tight, get some burlap and make a curtain to hang around the perches at night. Hang the curtain to the roof and have it long enough to reach the floor. This will cost little and will pay well.

Get Incubator Ready.

It's none too early to make sure that the incubator is in good repair and ready for business. If buying a new one, don't wait too long before ordering it.

ECONOMY IN BOILED BEEF

Many and Variable Ways by Which the Meat May Be Used to the Best Advantage.

Since soup bones now cost twenty cents where they used to cost five cents, it is more economical of time and fuel to buy a good boiling piece of beef than the shank. Of the several cuts that nearest the shank—namely, the heel of the round—is a good one to get. Every scrap of the meat is usable either when hot or when warmed up in sauces, a nice curry sauce perhaps, or one made by cooking a number of vegetables in the same stock. The stock, or bouillon, is not only used for soup but for vegetable dishes nowadays; even bouillon potatoes are popular—that is, potatoes boiled in bouillon.

Buy two pounds and a half of the heel of the round of beef. This will make three quarts of medium strong soup stock or bouillon. The cooked meat itself is what the French call "bouilli." The brisket is a favorite piece for this boiling with them. Wash the meat quickly, and if it is to be sliced when cold tie it up compactly. Cover with the amount of cold water necessary. Three quarts may be used for a medium stock, but three pints will make a very strong stock for gravies. Bring slowly to a boil and add enough salt to bring the scum to the surface quickly. For three quarts of liquid an even tablespoonful of salt will not be too much. This may be simmered over the simmering burner, or heat one stone of a fireless cooker to the point where the already boiling meat will continue to boil when set on it; put in a cooker, set covered vessel containing the meat on it, and leave on for five or six hours.

SERVE APPLES IN THIS WAY

What Is Known as Fire Balls May Be New to Some of the Younger Housewives.

Select bright red apples, cut off the tops and with a penknife remove the meat, leaving only sufficient wall to hold apple in shape. Make a filling of the following:

To six apples allow about twelve tablespoonfuls of very dry cooked rice, six tablespoonfuls cracker crumbs, six tablespoonfuls chopped apples, six tablespoonfuls sugar, six tablespoonfuls seeded raisins, six tablespoonfuls chopped almonds.

Whip one egg thoroughly, place in a cup and fill the cup with milk; stir well and place in a double boiler, adding one-half teaspoonful butter, grated rind and juice of one-half lemon and a dash of nutmeg. Cook until it thickens, cool, then mix it into the filling, being careful not to get it too soft. Mold lightly with the fingers and fill the apples, sprinkle with sugar, add a cupful of water and bake in a moderate oven. Serve with whipped cream or custard sauce.—Exchange.

Metropolis Pudding.

One pint of milk, two tablespoonfuls of flour, three eggs, one and a half ounces of butter, the grated rind of a lemon, finger biscuits, preserve. Butter a pie dish, put in a layer of sponge biscuits, then a layer of preserve, then another layer of biscuits; mix the flour and butter to a paste, add the milk boiling, and the lemon rind, stir over the fire for ten minutes, then add the beaten yolks of the eggs, beat well, pour into the dish and bake 45 minutes, then pile the white of eggs, beaten to a strong froth, on top, sift sugar over, and return to the oven till of a golden color.

Rising Bread.

Do not cover rising bread in bowls and tins with a dry cloth. Instead, cover with a damp cloth which has been wrung out in warm water. In cold weather the damp cloth should be placed over a dry cloth.

As a result the dough will not dry on the top and the loaves when baked will be much more uniform.

To prevent holes appearing in brown bread prick twice with needle, once when loaves are placed in tins and once immediately before loaves are placed in the oven.

Peas and Celery.

Make a delicious dish. Cook two cupfuls of raw celery cut in dice in enough boiling water to cover till tender. Drain off the liquid and measure out one cupful, thicken with two tablespoonfuls of flour rubbed smooth with one of butter; boil till smooth and add the celery and one can of peas which have been previously soaked in cold water. This is very dainty served in ramikins and slightly browned in the oven.

Potato Puff.

Take one-half pound of mashed potato and enrich it with . . . dessertspoonful of butter and a beaten egg yolk, and then add enough flour to enable you to roll the potato out on the pastry board. Cut into rounds, fold the potato paste over, wet the edges with egg yolk and pinch together. Coat with beaten egg and crumbs. Let them stand ten minutes and then fry; or if liked bake in a floured tin in the oven.

Squash Muffins.

Four tablespoonfuls sifted squash, one cupful sugar, two tablespoonfuls melted butter, two cupfuls sweet milk, three three-quarter cupfuls pastry flour, sifted with six tablespoonfuls cream of tartar and one and one-half teaspoonfuls of soda. Mix well in the order given and bake in gem pans, in a hot oven, about twenty minutes.

FAIRM STOCK

NOTES FOR SWINE BREEDERS

Success With Pigs Cannot Be Attributed to Luck—Model Farm Should Have Natural Shade.

Progression is the order of the day, and in no direction is there more progress made than in the breeding and feeding of swine.

The time is past when we can consider a man's success in swine growing based upon luck.

Good drainage is essential on the hog farm, and no amount of tile or artificial draining will take the place of good natural drainage.

While hills and valleys make an ideal place for a hog farm, the herd should be kept as near to the source of the water as possible because of the danger of the stock becoming afflicted with cholera and other diseases caused by the stream being contaminated by swine further up stream.

A model breeding farm should be provided with a timber lot or large grove. There is no shade like natural shade, and trees soften the cold winds during the winter. Their value cannot be overestimated when properly utilized by the swine grower.

The breeder who would be successful in this age of close competition must have the closest and keenest discrimination of what is necessary to constitute an animal of individual merit, or more properly he must have firmly fixed in his mind the exact contour of a perfect pig. Then he must have an idea of the kind of breeding stock required to produce such a pig.

There are numerous breeds of swine, varying not only in size, color, shape, feeding qualities and general characteristics, but also in the quality of their product.

It is not the great big fat pig that brings home the money, but the pig that will weigh from 200 to 300 pounds at from six to ten months of age that captures the top prices.

The breeding animals of the herd should receive the very best care and attention at all times, but with all of our knowledge of breeding and feeding, the science of swine growing is yet in its infancy.

KEEPING SWINE IN WINTER

Profit Can Be Made in Feeding Home-Grown Feeds, Such as Clover, Alfalfa and Ensilage.

It is a common question to be asked if it will pay to winter swine. I can see but one way to winter swine at a reasonable cost, and it is to winter them on as cheap feed as is possible, and make home-grown feeds, clover, alfalfa and ensilage, form a prominent part of the ration.

If we can winter an animal in this way and feed out only a small amount of grain I think we can make it profitable to keep a number of pigs through the winter and make fairly good gains, but it is a common occurrence



Winter Comfort for Little Ones.

to go on a farm in the spring and see 100 hogs which will weigh the same in May as they did in December, and all of the corn cribs empty.

Something is wrong when we see that kind of hogs, but no one will dispute the fact that the average feeder either feeds out more feed than can be fed with a profit or else has a bunch of scrub pigs in the spring.

There is one advantage in wintering pigs, we have them in time to feed out and reap the benefits of a good summer market, and in that manner receive considerable more money than we would if we were compelled to market them while the market was overstocked in November or December.—J. M. D.

Packing House Demands.

The demand at the packing houses is for leaner pork and smaller weight hogs. The feeders must cater to these requirements by feeding less corn and more protein feeds and shortening the fattening period.

Give Pigs a Variety.

Feed fall pigs during winter a moderate ration of corn and supplement with bran, shorts and such other nitrogenous feeds as you have on hand to give variety to the ration.